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Container for a Disc

The invention relates to a container for a disc and particularly to a container for a compact disc or digital video disc (DVD).

A conventional container for a disc includes three sections: a base section including a generally planar base member and one or more side walls upstanding therefrom; a middle section for retaining the disc; and a lid section including a generally planar top member and one or more side walls. The base and lid sections are pivotally attached together to allow the container to be opened and the disc to be removed from the middle section.

According to the invention, there is provided a container for a disc, the container including first and second closure portions hinged together to allow the container to be opened and closed by relative hinging movement of the closure portions and a support member for supporting the disc, the support member being contained within the closure portions when the container is closed, a first edge of the support member being rotatably connected to the first closure portion at a position spaced from the hinge and an opposite edge of the support member being slidable relative to the second closure portion, whereby when the container is opened by hinging apart the closure portions the support member is lifted relative to the second closure portion.

The first closure portion may include a generally planar lid member. The second closure portion may include a generally planar base member.

Preferably the closure portions are hingeable between a closed position where the lid member and the base member lie in generally parallel planes and an open position in which the base member and the lid member are angled at between 90° and 140° to one another, and preferably about 120° to one another.

The lid member may be substantially rectangular and is preferably approximately square. The dimensions of the lid member may be slightly larger than the diameter of a compact disc or digital video disc. The lid member may

have a width of about 110mm to 130mm and a length of about 110mm to 150mm.

The base member may be substantially rectangular and is preferably approximately square. The dimensions of the base member may be slightly larger than the diameter of a compact disc or digital video disc. The base member may have a width of about 110mm to 130mm and a length of about 110mm to 150mm.

The first closure portion may include one or more walls projecting out of the plane of the lid member, at edges thereof. The second closure portion may include one or more walls projecting out of the plane of the base member, at edges thereof.

The second closure portion may include an end wall projecting from an edge of the base member remote from the hinge. The end wall may extend along substantially the whole of said edge. The first closure portion may include side walls projecting from edges of the lid member which run between the hinge and an edge remote from the hinge. The side walls may extend along substantially the whole of said edges. The second closure portion may also include side walls projecting from edges of the base member which run between the hinge and the edge remote from the hinge. The side walls may extend only part way along said edges and may overlap the side walls of the first closure portion when the container is closed.

The walls of the first and second closure portions together may form sides of the container when it is closed.

Protrusions provided on one of the first and second closure portions may locate in complementary recesses provided on the other closure portion to form the hinge therebetween. The protrusions may be provided on legs forming extensions to the side walls of the lid member.

The support member may include a generally planar sheet of material for

supporting the disc. The width of the material at the first and second edges of the support member may be substantially the same as the width of the base and the lid. Between the said edges, the material may include a waisted portion having arc shaped edges.

Preferably the support member includes locating means for locating the disc thereon. The locating means may include a central projection for locating in a central hole of the disc. The projection may be shaped to form an arc of a circle. The projection may include a shelf provided on an upper part thereof. A disc may be locatable under the shelf.

The locating means may also include arc shaped edges for locating against an external circumference of the disc. The arc shaped edges may project out of the general plane of the sheet of material. An open side of the arc shaped central projection may open towards the arc shaped edges.

The first edge of the support member may be connected to the first closure portion between 10mm and 60mm, and preferably about 20mm, from the hinge. The support member may be provided with projections which are receivable in openings in the first closure portion, to form the connection therebetween. A projection may extend outwardly from each of two opposite sides of the first edge of the support member. The openings in the first closure portion may be provided in the side walls thereof.

The edge of the support member which is slidable relative to the second closure portion may include projections which locate in grooves provided in the second closure portion. A projection may extend outwardly from each of two opposite sides of the edge of the support member. The grooves may be provided in the side walls of the second closure portion. The grooves may be about 20 to 50 mm long. If a projection reaches an end of its respective groove, means may be provided for allowing the projection to snap out of the groove.

An embodiment of the invention will be described for the purpose of illustration only with reference to the accompanying drawings in which:

Fig. 1 is a diagrammatic top plan view of a CD case according to the invention;

Fig. 2 is a diagrammatic side view of the CD case of Fig. 1; and

Fig. 3 is a diagrammatic end view of the CD case of Figs. 1 and 2.

Referring to the drawings, a container in the form of a CD case 10 includes a first closure portion in the form of a lid 12 and second closure portion in the form of a base 14. The lid 12 and base 14 are pivotally connected together by a hinge 16. The base 14 includes a generally planar member 18 and an end wall 20 upstanding therefrom. Side walls 22a and 22b extend part-way down side edges 24 of the base 14. The function of the side walls 22a, 22b is described in more detail hereinafter.

The lid 12 also includes a generally planar member 26 and side walls 28 projecting therefrom. The lid 12 may be pivoted between an open position, as shown in the figures, and a closed position in which the planar member 16 lies generally parallel to the planar member 18 of the base 14. In this closed position, a CD may be retained within a casing formed by the planar members 18 and 26 of the base and lid respectively, the end wall 20 of the base and the side walls 28 of the lid.

The lid 12 is able to pivot freely between the open and closed positions about the hinge 16. The hinge 16 includes inwardly directed lugs 30 formed on legs 32 which form extensions of the side walls 28 of the lid. These lugs are received in holes 34 in the side walls 22b of the base, allowing for free pivotal movement between the lid 12 and the base 14.

The CD case 10 further includes a support member in the form of a platform 36 which retains and houses a CD 38 (shown in dotted lines in Fig. 1). The platform 36 is pivotally attached at one of its edges 40 to the lid 12. The edge 40 is attached by means of lugs 42, one of which extends from either side 44 of the edge 40. Each lug 42 fits into a complementary recess 46 provided in

a side wall 28 of the lid, about 15mm to 20mm from the hinge 16. This connection between the edge 40 of the platform 36 and the side walls 28 of the lid 12 enables relative rotational movement to take place between the platform 36 and the lid 12.

An opposite edge 48 of the platform 36 is slidably attached to the side walls 22a of the base 14. Each side 50 of the edge 48 includes a projecting lug 52 which is received in a groove 54 in the side walls 22a of the base 14. The lugs 52 are able to slide within their respective grooves 54, allowing the platform 36 to slide relative to the base 14.

The platform 36 is generally planar, for supporting the disc 38 thereon. The platform 36 includes a central waisted portion formed by curved edges 56 which are closer together towards a central region of the platform. The platform 36 includes disc locating means 58 in the central region thereof, the disc locating means including an arc shaped projection which may be received within a central circular hole of a disc. The disc locating means 58 may be provided with a shelf 60. A disc may be located such that a portion of the disc fits into an undercut region formed under the shelf 60, this retaining the disc in place on the disc locating means 58.

The platform 36 is provided with further locating means in the form of curved retaining edges 62 for locating against a circumferential outer edge of a disc. The edges 62 may be defined by thickened portions 64 of the platform 36, a step being formed at the junction of a thickened portion 64 and the remainder of the platform 36. It will be seen that a disc may be placed on the platform, being located on the central disc locating means 58. The disc may be positioned such that it is retained under the shelf 60 of the disc locating means 58. A circumferential edge of the disc is then located against the arc shaped edges 62. This holds the disc in place until a user wishes to remove the disc, whereupon it may be slid in the direction of the arrow A and lifted off the platform 36.

To close the CD case 10, the lid 12 is pivoted in an anti-clockwise

direction as illustrated in Fig. 2, bringing it into a position where its planar member 26 is generally parallel to the planar member 18 of the base 14. Lugs may be provided on the side walls of the base 14 and/or the lid 12 with complementary recesses being provided on the other of the two, to allow the case to click shut. When the case is closed, the end wall 20 of the base, the side walls 22a, 22b of the base and the side walls 28 of the lid, together with the planar members of the base and the lid, completely enclose the disc.

It will be seen that when the CD case 10 is in the closed position, the platform 36 lies generally flat on the planar member 18 of the base 14. However, when the CD case 10 is opened by pivoting the lid 12 into the position shown in the figures, the point at which the edge 40 of the platform is attached to the lid 12 is raised. This pivots the platform 40 out of the general plane of the base 14, lifting the supported disc towards the user. The disc may then be removed from the case by sliding it from under the disc locating means 58.

There is thus provided a container for CDs or DVDs which is easy and pleasant to use and relatively cheap to manufacture.

Various modifications may be made to the above described embodiment without departing from the scope of the invention. Alternative means for retaining the CD on the platform 36 may be used. In particular, the central disc locating means 58 may be slidable laterally in order to allow the disc to lock under lugs provided on, for example, the arc shaped edges 56. The case is preferably made from plastics materials, but alternative materials could be used, for example metals or robust card.

Whilst endeavouring in the foregoing specification to draw attention to those features of the invention believed to be of particular importance it should be understood that the Applicant claims protection in respect of any patentable feature or combination of features hereinbefore referred to and/or shown in the drawings whether or not particular emphasis has been placed thereon.

Claims

1. A container for a disc, the container including first and second closure portions hinged together to allow the container to be opened and closed by relative hinging movement of the closure portions and a support member for supporting the disc, the support member being contained within the closure portions when the container is closed, a first edge of the support member being rotatably connected to the first closure portion at a position spaced from the hinge and an opposite edge of the support member being slidable relative to the second closure portion, whereby when the container is opened by hinging apart the closure portions the support member is lifted relative to the second closure portion.

2. A container according to claim 1, wherein the first closure portion includes a generally planar lid member and the second closure portion includes a generally planar base member.

3. A container according to claim 1 or claim 2, wherein the closure portions are hingeable between a closed position where the lid member and the base member lie in generally parallel planes and an open position in which the base member and the lid member are angled at between 90° and 140° to one another.

4. A container according to any preceding claim, wherein the first closure portion includes one or more walls projecting out of the plane of the lid member at edges thereof and the second closure portion includes one or more walls projecting out of the plane of the base member at edges thereof.

5. A container according to claim 4, wherein the second closure portion includes an end wall projecting from an edge of the base member remote from the hinge, the end wall extending along substantially the whole of said edge.

6. A container according to claim 4 or claim 5, wherein the first closure portion includes side walls projecting from edges of the lid member which run

between the hinge and an edge remote from the hinge.

7. A container according to claim 6, wherein the second closure portion includes side walls projecting from edges of the base member which run between the hinge and the edge remote from the hinge.

8. A container according to claim 7, wherein the side walls extend only part way along the said edges and overlap the side walls of the first closure portion when the container is closed.

9. A container according to claim 8, wherein protrusions are provided on one of the first and second closure portions, the protrusions locating in complementary recesses provided on the other closure portion to form the hinge therebetween.

10. A container according to claim 9, wherein the protrusions are provided on legs forming extensions to the side walls of the lid member.

11. A container according to claim 10, wherein the support member includes a generally planar sheet of material for supporting the disc.

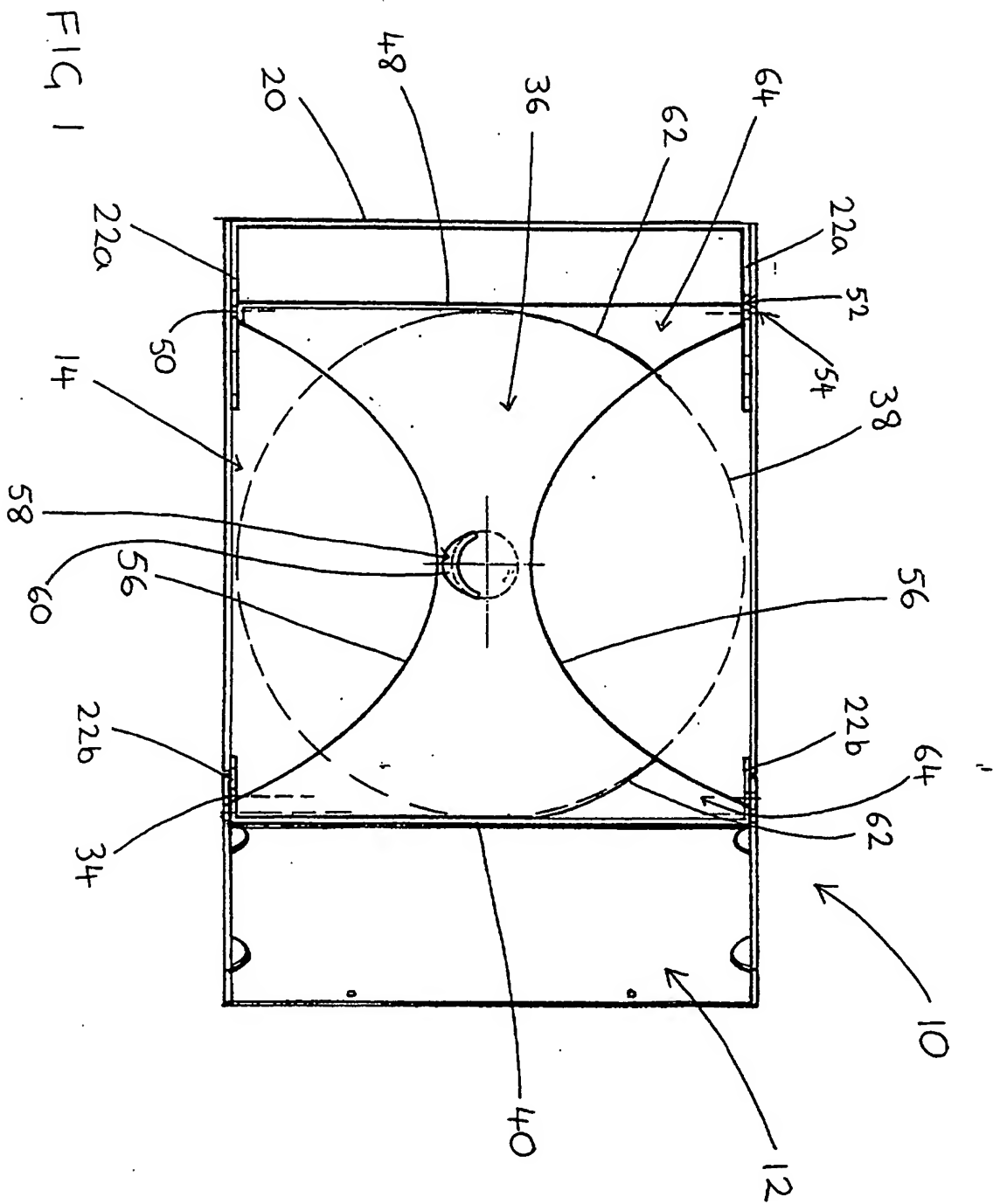
12. A container according to claim 11, wherein the width of the material at the first and second edges of the support member is substantially the same as the width of the base and the lid members, but between the said edges, the material includes a waisted portion having arc shaped edges.

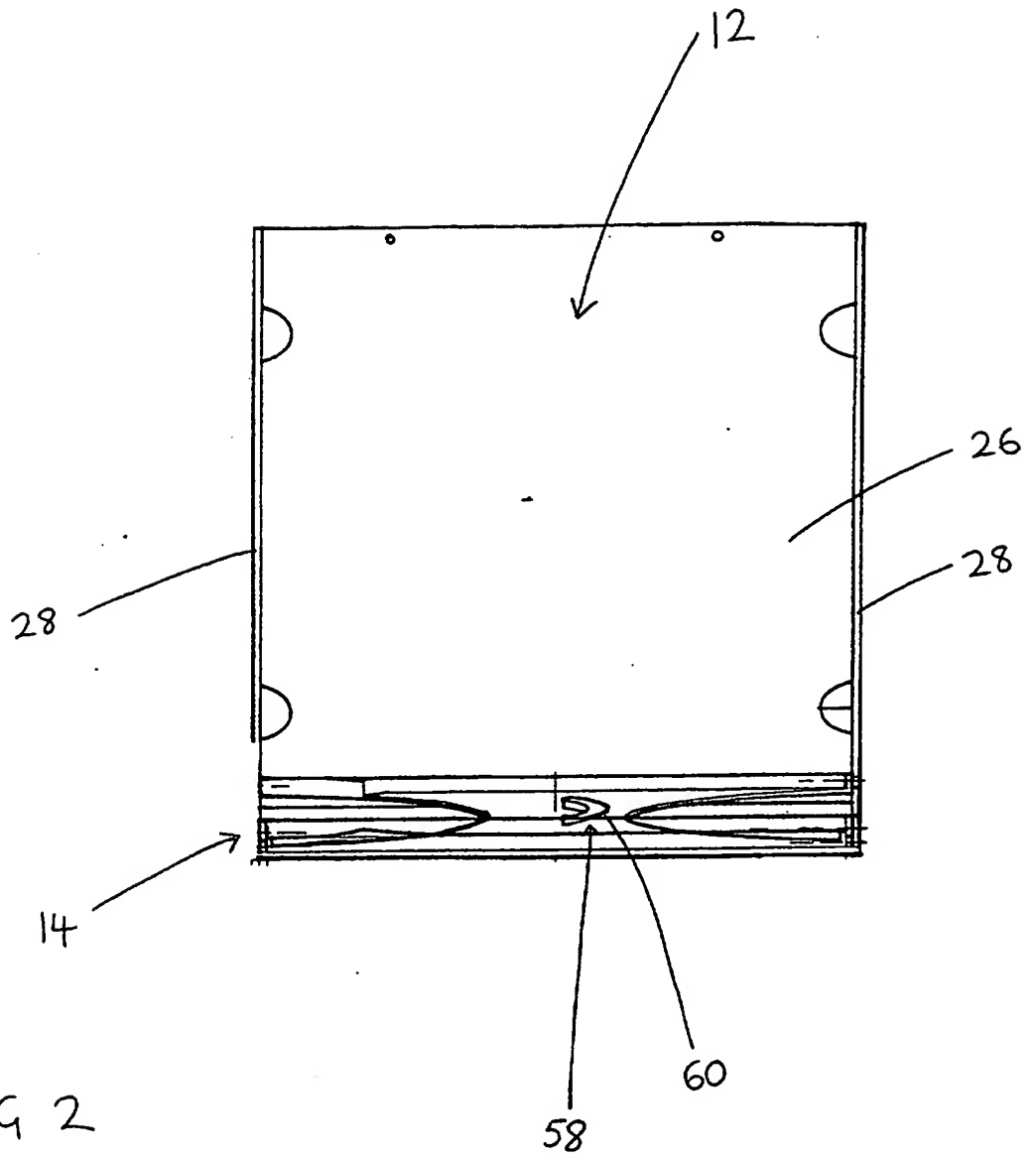
13. A container according to claim 12, wherein the support member includes locating means for locating the disc thereon, the locating means including a central projection for locating in a central hole of the disc.

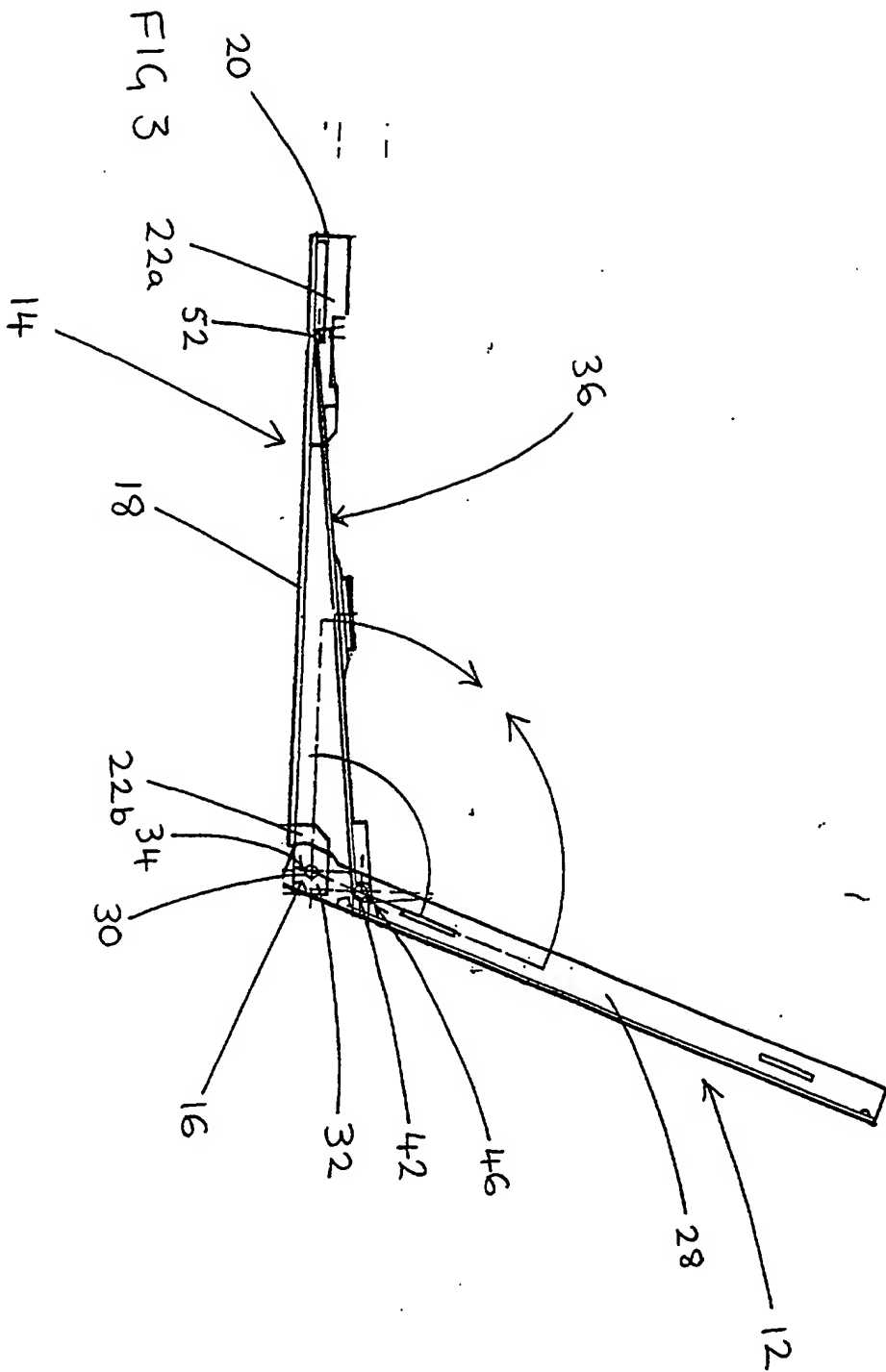
14. A container according to claim 13, wherein the projection is shaped to form an arc of a circle and includes a shelf provided on an upper part thereof, a disc being locatable under the shelf.

15. A container according to claim 13 or claim 14, wherein the locating means includes arc shaped edges for locating against an external circumference of the disc, the arc shaped edges projecting out of the general plane of the sheet of material.
16. A container according to claim 15, wherein an open side of the arc shaped central projection opens towards the arc shaped edges.
17. A container according to any preceding claim, wherein the support member is provided with projections which are receivable in openings in the first closure portion, to form the connection therebetween.
18. A container according to claim 17, wherein a projection extends outwardly from each of two opposite sides of the first edge of the support member.
19. A container according to any preceding claim, wherein the edge of the support member which is slidable relative to the second closure portion includes projections which locate in grooves provided in the second closure portion.
20. A container according to claim 19, wherein the grooves are provided in the side walls of the second closure portion.
21. A container according to claim 20, wherein means are provided for allowing a projection to snap out of its respective groove, if the projection reaches an end of the groove.
22. A container substantially as herein described with reference to the drawings.
23. Any novel subject matter or combination including novel subject matter disclosed herein, whether or not within the scope of or relating to the same

invention as any of the preceding claims.









INVESTOR IN PEOPLE

Application No: GB 0007053.2
Claims searched: 1 to 22

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Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.S): B8P (PG3E PG3X PG4 PE2J PL5)

Int Cl (Ed.7): B65D 5/52 G11B 33/04

Other: ONLINE:WPI,EPODOC,JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage		Relevant to claims
X,Y	GB 2325216A	(FUEST) (Figs 1 to 4 & corresponding description most relevant)	X:Cl 1 to 3 Y:Cl 4 to 11
X,Y	GB 469845	(THE ENGLISH NEEDLE & FISHING TACKLE CO LTD) (Whole disclosure relevant)	X:Cl 1 to 3 Y:Cl 4 to 11
X,Y	US 5931293	(SEELNMEYER) (Whole disclosure relevant)	X:Cl 1 to 3 Y:Cl 4 to 11
Y	US 5259498	(WEISBURN et al) (Fig 2 most relevant)	4 to 11
X,Y	US 5096055	(OPPER) (Figs 3 to 7 & corresponding description most relevant)	X:Cl 1 to 3 Y:Cl 4 to 11

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.